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MONTHLY LETTER OF THE BUREAU OF ENTOMOLOGY  
UNITED STATES DEPARTMENT OF AGRICULTURE

Number 126

NOV 1924  
October, 1924

CEREAL AND FORAGE INSECT INVESTIGATIONS

G. A. Dean, Senior Entomologist, in Charge

F. W. Poos, in charge of the European corn borer laboratory at Sandusky, Ohio, has been granted leave of absence for 4½ months, beginning with October, to pursue graduate work at Ohio State University. During his absence L. H. Patch will be in charge of the laboratory.

W. R. Walton returned October 4 from a several day's inspection trip of the European corn borer work conducted by the Arlington laboratory. He finds that there has been not only a very marked decrease in the intensity of infestation in the Massachusetts area, but also very little spread in the infestation. The decrease apparently is due principally to the adverse climatic conditions which prevailed during the summer of 1923. The thorough clean-up of the fields, gardens, and small weed areas and the fall plowing of practically 90 per cent of the cultivated fields probably also contributed considerably to the decrease in the infestation.

L. H. Worthley, E. G. Brewer, and George A. Dean spent several days in the early part of October inspecting the European corn borer infestations in Ohio, Michigan, and Ontario. During the two days inspection trip in Ontario they were accompanied by Arthur Gibson, H. G. Crawford, L. S. McLaine, and Prof. Lawson Caesar. An important corn borer conference was held at London, Ontario, October 10. In addition to the entomologists, the conference was attended by the Dominion Minister of Agriculture, the Ontario Commissioner of Agriculture, and the Agricultural Agents of Ontario. In many parts of Kent and Essex Counties, Ontario, where corn is the principal crop, the corn borer has increased from less than 1 per cent stalk infestation of last year approximately to 85 per cent stalk infestation this year, and from no commercial damage of a year ago to as high as 25 per cent commercial injury in some fields of dent corn. The spread of the infestation in Michigan has increased fully 300 per cent. In addition to an increase of 150 per cent in the spread of the infestation in Ohio there also has been a marked increase in intensity of the infestation. The spread of the infestation in Pennsylvania also has increased about 150 per cent. Messrs. Worthley, Dean and Brewer also attended a corn borer conference held at Columbus, Ohio, October 11.

Mr. Caffrey, of the Arlington, Mass., laboratory, reports that in addition to the recoveries of the *Exeristes roborator* Fabr. parasite of the corn borer the recovery of three pupae of the *Microgaster tibialis* Nees parasite has been made.

George Ainslee has returned to the Knoxville, Tenn., laboratory, after an absence of nearly a month in Columbia, Tenn., where he has been making a study of the Hessian fly infestation in wheat and Barley.

C. M. Packard, in charge of the Sacramento, Calif., laboratory, has been granted permission by the Secretary to do graduate work in entomology at the University of California for the University year 1924-25.

C. N. Ainslie, Entomologist in charge of the Sioux City, Iowa, laboratory, returned October 21 from a trip to northeastern Montana, where, in company with Dr. J. R. Parker, of the Montana Experiment Station, he made a survey of the new infestation of the Hessian fly. He reports a serious infestation of the fly in northeastern Montana and northwestern North Dakota.

V. L. Wildermuth, in charge of the Tempe, Ariz., laboratory, visited the branch laboratory at Yuma and, in company with E. E. Russell, in charge of the branch station at Yuma, made a survey of the alfalfa seed chalcis fly situation in the Yuma and Imperial Valleys.

W. H. Larrimer, in charge of the Lafayette, Ind., laboratory, visited points in northern Indiana and Ohio to investigate the Hessian fly situation. He also spent one day with Messrs. Poos and Patch, of the corn borer laboratory at Sandusky, studying the corn borer infestation in that vicinity.

L. H. Worthley visited Washington October 4 to 6 in the interest of the corn borer control work.

W. H. Larrimer spent a few days of his annual leave at Columbus, Ohio, where he arranged to take two terms of graduate work. Mr. Larrimer expects to receive his doctorate from Ohio State University at the June commencement.

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#### FRUIT INSECT INVESTIGATIONS

A. L. Quaintance, Senior Entomologist, in charge

H. K. Plank, in charge of the camphor scale project at New Orleans, La., states that all members of the force at the camphor scale laboratory at New Orleans attended the October meeting of the Louisiana Entomological Society, held in the Louisiana State Museum in that city on the evening of October 3. There was a good attendance, and a very interesting program was presented.

Among the visitors at the camphor scale laboratory in the month of October were H. E. Woodworth, Field Entomologist of the California Spray Chemical Company, Watsonville, Calif., and R. A. St. George, Assistant Entomologist, Division of Forest Insects.

Oliver I. Snapp, in charge of the Fort Valley, Ga., laboratory, writes that paradichlorobenzene was applied in Georgia peach orchards during the month under excellent weather conditions. The generation of the gas was sufficiently rapid to produce borer mortality within 14 days. As usual, large quantities of the chemical were used this year in the peach belt.

A majority of the peach growers in Georgia will use lubricating-oil emulsion this winter instead of the lime sulphur for scale control. One hundred thousand gallons of the stock emulsion will in all probability be required to meet the needs of Georgia growers.

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### TRUCK CROP INSECT INVESTIGATIONS

J. E. Graf, Entomologist, in Charge

J. E. Graf, in charge of Truck-Crop Insect Investigations, and C. G. Woodbury, of the National Canner's Association, Washington, D.C., attended a meeting of the Wisconsin Cannery Association held at Madison October 28 to 30, at which were pea growers, canners, and State and Government investigators. J. E. Dudley, Jr., Associate Entomologist, Madison, presented a report on the results of the past season's work, exhibited the latest improved type of aphidozer, a mechanical device for collecting the pea aphid, and showed the methods in use for combating this pest.

J. R. Douglas, Assistant Entomologist, Estancia, N. Mex. while doing some hibernation work near the mountains had an opportunity of cooperating with the Forest Ranger in controlling a small forest fire in the Manzano National Forest. Mr. Douglas reports remarkable success in coloring beetles with a modification of the Dudley formula, the color remaining on the beetles for over two months without injuring the insects.

K. L. Cockerham, Associate Entomologist, Biloxi, Miss., visited Mobile, Ala., on October 10, for the purpose of conferring with Otto Brown, Chief of the Division of Plant Industry of Alabama, relative to plans for cooperative work on the sweet-potato weevil eradication project in that State during the fall.

Present indications are that the sweet-potato crop in southern Mississippi will be the shortest since 1919, primarily on account of the exceedingly long drought of the past summer. Mr. Cockerham reports that the number of farms infested with the sweet-potato weevil in Mississippi will be far less than for any previous time within five years. A most intensive clean-up and destruction campaign will be waged in Pearl River County, Miss., and in Mobile County, Ala., during November and December.

On October 20 two Temporary Inspectors were appointed for sweet-potato weevil scouting in Mobile and Baldwin Counties, Ala., with S. C. Brummitt. One of these men is F. R. White, who previously spent two years in this work in Mississippi.

W. M. Mingee, junior entomologist, connected with the sweet-potato weevil project in Mississippi, was transferred from Ocean Springs, Jackson County, to Picayune, Pearl River County, Miss., and will have charge of the immediate territory surrounding that location.

C. C. Taylor and H. K. McConnell, of the Tobacco By-Products and Chemical Corporation, visited the office and conferred with Bureau officials regarding insecticides and their application.

W. D. Mecum completed his season's work in Wisconsin, and his temporary appointment was terminated on October 7.

D. M. DeLong, Professor of Entomology at the Ohio State University, who was in charge of the temporary summer station at Columbus, Ohio, in connection with the Mexican bean beetle investigations, has resumed his work at that University.

S. F. Potts, formerly connected with Columbus station, is now taking postgraduate work at the Ohio State University, where he has a fellowship.

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#### SOUTHERN FIELD CROP INSECT INVESTIGATIONS

J. L. Webb, Entomologist, Acting in Charge

Dr. W. D. Hunter spent a few days in Washington during the month. R. C. Gaines, of the boll weevil laboratory, Tallulah, La., accompanied him on this trip.

Geo. H. Bradley, of the Mound, La., station, is taking graduate work at Cornell University. H. E. Wallace of the same station is studying at the University of Minnesota.

O. J. Harvey, of the Florence, S. C., station, has resigned, to accept a permanent position outside the service.

J. W. Ingram, of the Sugarcane Insect Laboratory, has been conducting experiments in control of the sugarcane mealy bug near Cairo, Ga.

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#### STORED PRODUCT INSECT INVESTIGATIONS

E. A. Back, Entomologist, in Charge

J. C. Bridwell, who has continued his interest in work on bruchids, has resigned his position at Columbia University and has become manager of the Bombay Office of the United States and India Corporation, 17 Battery

Place, New York City. Mr. Bridwell's present address is "Care of National Bank of India, Ltd., Bombay, India." Mr. Bridwell is interested in the importation into this country of dried food products.

Dr. E. A. Back has just returned from a visit to stations at Thomasville, Ga., and Orlando, Fla. He and S. E. McClendon made a general survey of weevil infestation of corn. The infestation is exceedingly light this year as compared with those of previous years, probably owing to the cold of last winter.

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#### BEE CULTURE INVESTIGATIONS

James I. Hambleton, Apiculturist, in Charge

Dr. James A. Nelson, formerly with this office, was at the Bee Culture Laboratory a few days last month for work in connection with the publication of his manuscript on the morphology of the honeybee larva.

M. S. Smith, a rehabilitation worker in beekeeping at the University of Indiana, was a recent visitor at the Laboratory.

Dr. E. F. Phillips, now Professor of Apiculture at Cornell University, was at the Laboratory October 16 to 18.

Ph. J. Baldensperger, a beekeeper from France with an international reputation, especially as to races of bees, was a visitor at this office from October 16 to October 27. Mr. Baldensperger came to America as the French delegate to the International Apicultural Congress at Quebec last September. Mr. Baldensperger was born in Palestine, and his beekeeping experience covers that country, France, and northern Africa. He is at present Editor of the Bulletin de la Societe d'Apiculture des Alpes-Maritimes. During his stay in Washington he delivered lectures on Palestine at the Bee Culture Laboratory on October 18, at the Rhode Island Avenue Presbyterian Church on October 19, and before the Biological Society of Washington on October 25.

George S. Demuth, Editor of Gleanings in Bee Culture, but formerly with this office, was a visitor at the Laboratory on October 27.

Robert Dunn, Art Editor of Farm and Fireside, was a visitor at the Laboratory on October 10.

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#### GIPSY MOTH AND BROWN-TAIL MOTH INVESTIGATIONS

A. F. Burgess, Entomologist, in Charge

A. F. Burgess, H. L. Blaisdell, and S. S. Crossman recently visited the gipsy moth infestation at Lacolle, Quebec. After inspecting the infestation



a conference was held at Champlain, N. Y., with Dr. J. M. Swaine, L. S. McLaine, and several assistants of the Canadian government, and with Dr. E. P. Felt and H. L. McIntyre of the State of New York. The infestation is estimated to contain about 1,000 egg clusters. The Canadian authorities will make a serious attempt during the coming winter and summer to exterminate the colony.

The last of June puparia of Compsilura concinnata Meig. were sent to California in an attempt to establish this parasite in that State. C. concinnata is one of the tachinids introduced from Europe as a parasite of the larvae of the gipsy and brown-tail moths. This species is not only well established in the gipsy moth area but has been recovered from native insects about 100 miles west of the gipsy moth quarantine line. Compsilura has a large number of native insect hosts and it is hoped that the species will become established in California.

In October two colonies of Schedius kuvanae How. were sent to Madrid, Spain, and one colony to Rabat, Morocco. At each of these places there is a heavy gipsy moth infestation. This egg parasite, which was introduced into New England from Japan, is now well established in the southern part of the area of New England infested by the gipsy moth. Schedius has several generations each year, and if it is established in Spain and Morocco it should become for those countries a valuable parasite of the gipsy moth egg.

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#### FOREST INSECT INVESTIGATIONS

F. C. Craighead, Entomologist, in Charge

In the month of October Dr. Craighead spent a few days at Asheville, N. C., discussing cooperative work with Messrs. Clapp and Frothingham, of the Forest Service. The necessity for entomological investigations proceeding along with the Forest Service studies was fully recognized by all. Several large centers of southern pine beetle killings of 1923 were visited at the same time. It was found that this epidemic had completely died out, and no trees have been killed since the late summer of 1923.

On September 9, J. C. Evenden made a final examination of the area covered by the spraying operations instituted against a sawfly and a needle tyer in the lodgepole pine stands at West Yellowstone, Yellowstone National Park. Mr. Evenden reports that the treated trees look very well and that all of the sawflies and from 75 to 90 per cent of the needle miners in the area sprayed were destroyed. It is firmly believed that had the spraying operation been completed two weeks earlier, which was absolutely impossible, a greater mortality of the needle tyers would have resulted. At the time of the spraying operation many of the larvae had emerged from their needle mines and had constructed nests into which the spray did not penetrate.

R. A. St. George spent the latter part of October in the vicinity of Vicksburg, Miss., examining the girdled and felled trap trees cut at different



seasons of the year, for the purpose of determining the best method of preventing injury by ambrosia beetles. While in the South he spent a day at New Orleans attending the meetings of the Southern Logging Congress and gave a short talk on forest insect losses in the South and methods of prevention.

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### MISCELLANEOUS INVESTIGATIONS

(Items from the National Museum Contributed by S. A. Rohwer)

C. F. W. Muesbeck, of the Gipsy Moth Laboratory, Melrose Highlands, Mass., spent about three weeks during October in the Division of Insects studying the collection of Braconinae with a view to the publication of a revision of this group.

News has been received of the marriage of Miss Margaret Fagan, formerly of the Division of Insects, and J. J. De Gryse. They are now located in Canada, where Mr. De Gryse is connected with the Entomological Branch, Canadian Department of Agriculture.

F. Anderson, Director of the West Indian Sugar Factory, St. Croix, Virgin Islands, recently donated to the Museum a collection of St. Croix and other insects, mainly Coleoptera. The collection includes about 2,000 specimens, which have been accessioned and distributed to the various specialists.

Dr. H. E. Ewing has had in captivity for several months an interesting pet, a California tarantula. It is very gentle, several people in the Museum having handled him without injury. It feeds almost entirely on grasshoppers, and will eat as many as two or three full-grown grasshoppers at a time. It macerates and swallows the whole insect until nothing remains of the victim--not even a claw, mandible or wing. It has molted once in captivity.

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### LIBRARY

Mabel Colcord, Librarian

### NEW BOOKS

American Honey Producer's League.

A treatise on the law pertaining to the honeybee . . . Madison, Wisc., The American Honey Producers' League in cooperation with the American Bee Journal and Gleanings in Bee Culture. 1924. 88 p.

Ash, E. C.

Ants, bees and wasps-- their lives, comedies and tragedies. . . London, Robert Holden & Co., Ltd., 1924. 136 pp., illus. (Half-title: Nature Lovers Library v. 23.)

Cavigny, Paul.

Les animaux parasites de l'homme et de l'habitation. Paris, G. Doin, 1924. 407 p., illus.

Clute, W. N.

A dictionary of plant names. Joliet, Ill., W. N. Clute & Co., 1923. 215 p.

Dixon, Royal, and Eddy, Brayton.

Personality of insects. N. Y., C. W. Clark Co., 1924. 247 p., plates (col. front.).

Ferton, Charles.

La vie des abeilles et des guêpes - oeuvres choisies, groupées et annotées par Etienne Rabaud et Francois Picard. Paris, Etienne Chiron, editeur, 1923. 376 p., illus. Bibliographic footnotes.

Guenaux, Georges.

Entomologie et parasitologie agricoles. . . 4ed. Paris, Librairie J.-B. Bailliere et Fils, 1922. 592 p. illus. (Encyclopedie agricole publiee sous la direction de G. Wery.)

Janssens, F. A.

La chiasmotypie dans les insectes - Spermatogenese dans 1<sup>o</sup> -- Stethophyma grossum (L.). 2<sup>o</sup> -- Chorthippus parallelus (Zetterstedt). La Cellule, v. 34, fasc. 1, p. 133-359. 16 pl. Bibliographie, p. 325-335.

Kuhnikanann, K.

Lantana flies (*Agromyza lantana*, Frogg.) in Hawaii. Agr. Jour. India v. 19, pt. 5; p. 504-508, Sept., 1924.

Legros, G. V.

La vie de J.-H. Fabre naturaliste, suivie du repertoire general analytique des Souvenirs entomologiques. . . Paris, Librairie Delagrave, 1924. 437 p., plates (Edition definitive illustree v. 11).

Morstatt, H.

Preliminary checklist of "common names" used in applied entomology. Supplementa Entomologica Nr. 10. 56 p. Berlin-Dahlem, Aug. 1, 1924,

Robertson, T. B.

Principles of biochemistry for students of medicine, agriculture and related sciences. . . 2d ed., thoroughly revised. . . Philadelphia etc. Lea & Febiger, 1924. 796 p., illus., diags. "References" at end of each chapter.

Roubaud, E.

Histoire des anacomptomyies --mouches parasites des guepes sociales d' Afrique. Contribution a l'etude parasitisme chez les muscides entomobies. Ann. Sci. Nat. Zool. ser. 10, v. 7, nos. 3 & 4, p. 197-248, illus., 2 pl. Paris, 1924.

Schulz, U. K. T.

Zur kenntnis der apfelbaumschadlings *Anthonomus pomorum* L. Zoologische Jahrbucher Abt. f. Syst. Bd. 48, Hft. 3/4, p. 217-298, pl. 18, Jena, 1924.

Schulze, Paul.

Biologie der tiere Deutschlands unter mitwirkung zahlreicher fachleute bearb. und hrag. von dr. Paul Schulze. . . Berlin, Gebrüder Bornstraeger, 1923. . . Lfg. 5, t. 11, 38; lfg. 7, t. 42, 49; Contents: t. 11, Gastrotricha, von Paul Schulze; t. 38, Diptera, von E. Lindner; t. 42, Hymenoptera I, von H. Bixchopp; t. 49, Amphibia, von A. Remans.

Seidlitz, G. K. M. von.

Fauna baltica. Die Käfer (Coleoptera) der deutschen ostseeprovinzen Russlands. . . 2. neu bearb. Aufl. . . . Königsberg, Hartungsche verlagsdruckerei, 1891. 818 p., fold., pl. "Abkürzungen der namen und angabe der wichtigsten literatur," p. xxix-xxxviii.

